

Pennsylvania.—Wysox, 10th, 11th; Pittsburg, 19th.
South Carolina.—Stateburg, 1st.
Tennessee.—Ashwood, 6th; Nashville, 23d; Austin, 30th.
Texas.—Fort Davis, 3d; Cleburne, 5th, 27th; El Paso and Rio Grande City, 8th; Brownsville, 8th, 20th; San Antonio, 13th; New Ulm, 19th; Fort Concho, 24th.
Utah.—Salt Lake City, 4th, 13th, 31st; Nephi, 9th, 17th.
Vermont.—Charlotte, 10th.
Virginia.—Wytheville, 1st; Variety Mills, 25th.
Wisconsin.—Prairie du Chien, 6th; Embarras, 8th.
Wyoming.—Fort Bridger, 15th, 20th.

SLEET.

Pike's Peak, Colorado, 1st, 2d, 6th, 7th, 10th, 12th, 13th, 15th, 16th, 17th.
 Fort Buford, Dakota, 7th.
 Boise City, Idaho, 22d.
 Anna, Illinois, 7th.
 Cresco, Iowa, 7th.
 Fort Scott and Dodge City, Kansas, 7th.
 Eastport, Maine, 2d.
 Alpena, Michigan, 7th.
 Escanaba, Michigan, 8th.
 Saint Vincent and Saint Paul, Minnesota, 8th.
 Lamar, Missouri, 7th.
 Mount Washington, New Hampshire, 8th.
 Garrettsville, Ohio, 9th.
 Cleveland, Ohio, 9th, 10th.

PRECIPITATION FROM A CLOUDLESS SKY.

Humphrey, New York: snow fell from a cloudless sky at 9.30 p. m. of the 10th.

El Paso, Texas: light rain fell from 8.45 to 8.53 p. m. on the 7th, when the sky overhead was perfectly clear, and no clouds were observed within 45° of the zenith.

COTTON REGION REPORTS.

A system of temperature and rainfall observations was begun in the spring of 1882 in the cotton-growing districts of the South. These observations have been continued since in each year from April to October, inclusive, and were resumed May 1, 1885, one month later than in the preceding years.

In the following table are given the average rainfall and the means of the maximum and minimum temperatures for the several districts as shown on the chart issued with the REVIEW for April, 1882. For the purpose of comparison the averages for these districts during the three preceding years are also given. In the districts of Little Rock, New Orleans, Memphis, and Vicksburg, large deficiencies in the rainfall are shown, while a marked excess occurs in the districts of Wilmington, Atlanta, Augusta, and Montgomery. The mean of the maximum and minimum temperatures differs but slightly from the average for the previous years.

Temperature and rainfall data for the cotton districts, May, 1885.

Districts.	Rainfall.			Temperature.								Extremes for May, 1885.	
	Average for May of three preceding years.	Average for May, 1885.	Departures.	Maximum.			Minimum.						
				Mean for May of three preceding years.	Mean for May, 1885.	Departures.	Mean for May of three preceding years.	Mean for May, 1885.	Departures.				
									Max.	Min.			
New Orleans.....	6.24	3.12	- 3.12	83.9	82.9	- 1.0	63.0	61.4	- 1.6	105	57.6		
Savannah.....	2.89	3.83	+ 0.85	86.0	84.0	- 2.0	61.9	62.1	+ 0.2	99	57.9		
Charleston.....	3.43	3.56	+ 0.13	83.5	82.4	- 1.1	59.6	59.0	- 0.6	95	40.0		
Atlanta.....	2.18	5.56	+ 3.38	81.2	79.9	- 1.3	59.4	59.6	+ 0.2	96	27.0		
Wilmington.....	2.70	6.75	+ 4.05	81.3	79.9	- 1.4	56.1	56.2	+ 0.1	94	41.7		
Memphis.....	5.31	2.82	- 2.49	79.5	78.5	- 1.0	56.6	55.9	- 0.7	97	54.7		
Galveston.....	6.54	6.49	- 0.05	84.4	82.1	- 2.3	62.5	61.1	- 1.4	96	57.3		
Vicksburg.....	6.14	4.75	- 1.39	82.2	81.2	- 1.0	60.7	62.5	+ 1.8	96	54.5		
Montgomery.....	2.31	5.99	+ 3.68	84.1	81.8	- 2.3	58.2	60.4	+ 2.2	96	54.3		
Augusta.....	2.45	5.32	+ 2.87	83.7	82.3	- 1.4	58.9	58.4	- 0.5	95	54.9		
Little Rock.....	6.96	2.51	- 4.45	79.7	80.0	+ 0.3	55.5	54.5	- 1.0	98	47.8		
Mobile.....	3.83	4.35	+ 0.52	82.9	84.7	+ 1.8	59.4	62.2	+ 2.8	97	58.5		

WINDS.

The most frequent directions of the wind during May, 1885, are shown on chart ii. by arrows flying with the wind; they are also given in the table of miscellaneous data. In the extreme northwest, upper Mississippi and Missouri valleys, the prevailing winds were from north to northwest; along the south Atlantic and east Gulf coasts they were from southeast to southwest; on the middle Atlantic coast they were from east to northeast; in other districts they were variable.

HIGH WINDS.

(In miles per hour.)

Wind-velocities of fifty miles, or more, per hour were reported as follows:

Mount Washington, New Hampshire, 98 nw., 2d; 85 nw., 3d; 53 s., 7th; 70 s., 8th; 63 nw., 15th; 57 w., 16th; 50 nw., 19th; 57 nw., 20th; 70 nw., 26th; 62 nw., 27th; 60 se., 31st. Pike's Peak, Colorado, 74 sw., 15th; 64 sw., 18th; 72 sw., 22d; 56 nw., 28th.

Block Island, Rhode Island, 52 ne., 14th.

Dodge City, Kansas, 58 se., 15th.

Indianola, Texas, 50 n., 8th; 50 ne., 17th.

Sandy Hook, New Jersey, 50 e., 1st.

LOCAL STORMS AND TORNADES.

Ogreeta, Cherokee county, North Carolina: a tornado occurred three miles south of this place at 11.45 a. m. on the 1st. The tornado-cloud was funnel-shaped and was accompanied by rain and hail. Considerable damage was done.

Portsmouth, North Carolina: a violent thunder-storm, accompanied by high wind and heavy rain, prevailed from 7.45 to 8.35 p. m. on the 1st. A number of houses were slightly damaged.

The "New York Herald," of May 8, 1885, contained the following:

LITTLE ROCK, ARK., May 7, 1885.—Reports from Indian Territory state that one of the most fearful storms ever known in that section occurred near Mount Scott on the 5th. It began in the evening with a southerly wind with a force of eighty miles an hour, and increased through the night, with terrific thunder and lightning and a driving rain. The forest for miles was swept away by the wind, and the destruction of everything in its broad path is complete. In localities further north the destruction of cabins and dug-outs, occupied by cattle herders, is reported, and several lives are said to have been lost.

New Market, Madison county, Alabama: a tornado occurred at this place at 6.30 p. m. on the 6th. The tornado-cloud was funnel-shaped and moved in a path N. 45° E. for a distance of nine miles; it was but a few seconds in passing a given point. The masonic temple, a church, and some other buildings were destroyed, entailing a loss aggregating \$20,000.

Buchanan, Haralson county, Georgia: a tornado occurred six miles east of this place at 9 p. m. on the 9th. It moved N. 45° E., and was most destructive in a track about five hundred feet wide. Hail preceded the tornado and rain fell both before and after it. Three houses were destroyed and others damaged; several persons were injured.

Warren, Lincoln county, Nebraska: at 2.30 p. m. on the 15th a tornado occurred. The cloud was funnel-shaped and moved N. 30° E. for a distance of two miles. Two houses were destroyed.

Kingman, Kingman county, Kansas: a tornado occurred west of this place at 5 p. m. on the 15th. The cloud was funnel-shaped and moved in a northeasterly direction for a distance of one and one-half miles, the width of the tornado's path being about three hundred and thirty feet. Several buildings were destroyed. The tornado was followed by heavy rain. Another tornado occurred at Kingman on the 16th, at 6 p. m., causing but slight damage.

At 4 p. m. on the 15th, a tornado occurred in the eastern part of Rooks county, Kansas. It moved in a north-northeasterly direction for a distance of eighteen miles, at a velocity of about forty miles per hour. The width of destructive path was from 1,320 to 2,640 feet. Rain and hail fell both before

and after the passage of the tornado. Observers report that the funnel-shaped cloud had a rotary motion contrary to the movement of the hands of a watch. One person was killed and twelve were injured. Nineteen houses were blown down. The total damage is estimated at \$50,000.

Caldwell, Sumner county, Kansas: a tornado occurred here during the night of the 15-16th, causing considerable damage.

Minneapolis, Ottawa county, Kansas: a tornado occurred in the southern part of this county on the 16th. A number of buildings were blown from their foundations, while others were less seriously injured. The tornado appears to have started south of Solomon river and ended at Bennington.

Kirwin, Phillips county, Kansas: ten houses were destroyed and twenty-five persons injured by a tornado which occurred at 4 p. m. on the 16th. A number of horses and cattle were also killed.

Maud, Kingman county, Kansas: a tornado occurred eight miles west of this place on the 16th. Some small buildings were destroyed.

Westmoreland, Pottawatomie county, Kansas: a tornado began about two miles northeast of station on the 16th. As it passed to the northward it increased in violence, destroying fencing, orchards, &c.

New London, Connecticut: a southeasterly storm began at 12.30 and ended at 4.15 p. m. on the 16th. A maximum wind velocity of thirty-two miles per hour was recorded at 1.25 p. m. The storm was of local character and was confined to the Thames valley, extending over an area ten miles in length and four miles in width.

Greeley, Wild county, Colorado: at 2.20 p. m., on the 18th, a tornado occurred two and one-half miles east of this place. The tornado cloud moved in a north-northeasterly direction, destroying everything in a path six hundred feet wide. It was preceded by rain and hail and followed by rain. The gyratory motion of the cloud is said to have been with the hands of a watch.

Huron, Dakota: at 5.15 p. m., on the 20th, a thunderstorm began with wind from southwest. At 6 p. m. the wind increased to the force of a gale, and for five minutes blew at the rate of fifty miles per hour. A number of outbuildings, signs, etc., were blown down. Considerable damage was done by lightning. The storm moved from southwest to northeast; it was accompanied by small hail, the hailstones being about the size of peas. A thunder-storm, with small hail, also prevailed from 4.45 to 5.15 p. m., on the 31st, at which time a destructive storm is reported to have occurred ten miles south of Huron.

Winnipeg, Manitoba: a tornado passed in an easterly direction over the northwestern outskirts of this place during the afternoon of the 21st. The roofs were blown from several buildings. When the tornado struck the river a large water-spout was formed. A similar storm, also moving eastward, passed to the south of the city at the same time.

Saint Louis, Missouri: during the morning of the 24th the weather was warm and sultry; at 6.48 p. m. the wind suddenly veered from south to west and then gradually to northwest, blowing in violent gusts; for five minutes, ending at 6.53, it blew at the rate of forty-seven miles per hour. Three buildings in this city were struck by lightning and damaged during the storm.

Columbus, Ohio: a violent thunder-storm prevailed during the afternoon of the 24th. The rainfall was very heavy and caused the river to rise rapidly; several small bridges were washed away. Considerable damage was done by lightning.

Johnstown, Licking county, Ohio: during the afternoon of the 24th a violent storm of rain, hail, and wind prevailed at this place. The heavy rain caused the streams to overflow and many bridges and fences were washed away.

Cincinnati, Ohio, 25th: reports from Concord, Lake county, Ohio, state that during the afternoon of the 24th a severe storm of rain and wind caused damage to wheat fields in that vicinity.

Denton, Denton county, Texas: a severe storm occurred here during the afternoon of the 24th, causing considerable damage to the wheat and oat crops. The heavy rainfall caused the streams to rise to such an extent as to interrupt travel.

Alton, Madison county, Illinois: a tornado occurred during the night of the 24-25th. It approached from the southwest and caused serious damage to several large buildings on the river front. The damage throughout the city will aggregate a large amount.

Strawn, Palo Pinto county, Texas: a store was blown down during a severe storm on the night of the 24-25th. The heavy rain caused serious injury to the wheat crop.

Council Bluffs, Iowa: a violent and destructive storm occurred here on the afternoon of the 25th. The Exhibition building was completely destroyed and a number of others were damaged.

Morgan, Bosque county, Texas: at about 6 p. m. on the 27th a severe storm occurred at this place. Many out-buildings were overturned and numerous substantial buildings were damaged.

Mexia, Limestone county, Texas: during a storm of considerable severity at this place on the morning of the 27th, a store-house was unroofed and several trees were blown down.

Whiting, Jackson county, Kansas: at noon on the 27th a tornado passed near this place, moving in a northeasterly direction. The width of the path of destruction was three hundred feet. Two buildings were destroyed.

Goff's, Nemaha county, Kansas: a tornado occurred at this place at 11.30 a. m. on the 27th. The funnel-shaped cloud moved E. 40° N. in a path three hundred and thirty feet wide. The railroad station, four dwellings and several out-buildings were destroyed. Five persons were seriously injured.

Nortonville, Jefferson county, Kansas: a tornado occurred here at 12.15 p. m. on the 27th. It moved in a northeasterly direction for a distance of twelve miles, the path of greatest destruction being about thirty feet wide. The railroad station was damaged and two houses and some coal sheds were destroyed. The damage is estimated at \$3,000.

Frankfort, Marshall county, Kansas: a tornado occurred on the 27th, at 10.40 a. m. The cloud moved in a northeasterly direction, the width of the path of greatest destruction being but fifteen feet. Five large outbuildings were destroyed.

Ansonville, Anson county, North Carolina: at 6.30 p. m. on the 27th, a tornado destroyed several buildings at this place. The tornado-cloud was funnel-shaped and moved in an easterly direction. Two persons were injured.

Yorkville, York county, South Carolina: a tornado occurred eight miles west of this place at 3 p. m. on the 27th. The tornado moved in an east-northeasterly direction for a distance of twenty-five miles, its path being five hundred feet in width. Three houses were blown down and many unroofed.

Charlotte, North Carolina: a tornado passed in an easterly direction, near Matthews, Mecklenburg county, at about 6 p. m. on the 27th; it crossed the Carolina Central railroad about four miles from Charlotte, where several large trees were blown across the track. Many buildings in the vicinity of Matthews were destroyed.

Greensborough, Hale county, Alabama: a tornado occurred near Demopolis, Marengo county, about thirty miles southwest of this place, on the 28th. Buildings, fencing, and trees were blown down.

Vevay, Switzerland county, Indiana: at 7.20 p. m. on the 30th, a well-defined tornado-cloud was observed passing to the northwest of this place. It disappeared at 7.40 p. m. without having descended to the ground.

New Orleans, Louisiana: a severe storm prevailed at the United States barracks, about six miles south of the city, at 2.30 p. m. on the 30th. Several trees were blown down and the steamer "John W. Cannon" narrowly escaped capsizing. Heavy rain, with hail from 2.30 to 2.45 p. m., fell at New Orleans.